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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,377	10/22/2001	Kenneth J. Galipeau	14113.57.1.1	9767

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EXAMINER

LE, DIEU MINH T

ART UNIT PAPER NUMBER

2114

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/004,377

Applicant(s)

GALIPEAU ET AL.

Examiner

Dieu-Minh Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 31-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been<sup>\*</sup> received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/21/05</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is in response to the amendment filed September 21, 2005 in application 10/004,377.

2. Claims 1-30 have been cancelled; claims 31-42 are again presented for examination.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 31-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable Funk (US Patent 5,793,497) in view of Kandasamy et al. (US Patent 5,513,314 hereafter referred to as Kandasamy).

As per claim 31:

Funk substantially teaches the invention. Funk teaches:

- a method for data protection [abstract, col. 5, lines 29-33 and col. 6, lines 1-11]

comprising:

- intercepting change information representing a change made by a process running on a computer system to a file on the computer system [col. 1, lines 62 through col. 2, line 3, col. 2, lines 52-55, col. 3, lines 59-67, and col. 8, lines 50-53];

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- storing the change information on a log file [col. 3, lines 59-67; col. 4, lines 39-52; col. 6, lines 12-22; and col. 9, lines 13-22];
- transmitting the contents of the log file through a network (i.e., updating the information in the information database and generating a file corresponding to the customer based on information in the customer record and the dynamically updated information) [[fig. 1, col. 2, lines 14-28 and col. 2, lines 36-39].

Funk does not explicitly teach:

- a remote log file associated with a remote system configured to use at least in part the change information to enable a data associated with the file on the computer system to be consistent with at least a portion of the file on the computer system.

However, Funk does disclose capability of:

- a method and apparatus for delivering and modifying information electronically [abstract, col. 2, lines 14-27] comprising:
  - a connectivity among memory, processor, end-user terminals (i.e., remote as well as local) via LAN and

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- Internet (WAN) environment [fig. 1, col. 3, lines 35 through col. 4, lines 25];
- information exchanging and dynamically updating between source and destination (*i.e., end user terminals*) via a network in a real-time [col. 5 lines 43-51];
  - information modification and editing [col. 6, line 64 through col. 7, line 20];
  - file generating, updating information to and from database, and transmitting data via a network [col. 2, lines 14-41];
  - periodically updating the information in the information database and generating a file corresponding to the customer based on information in the customer record and the dynamically updated information [col. 2, lines 36-39];
  - means for responsive to the message from the predetermined customer for modifying a customer record responding to the predetermined customer [col. 2, lines 32-35];
  - sending confirmation back to sender confirming change to database [fig. 6, lines 19-20].

In addition, Kandasamy explicitly teaches:

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- A network computer system having a fault tolerant Network Filesystem (NFS) server and mirroring protocol [abstract, fig. 2 col. 1, lines 8-11].

comprising:

- inquiring requests including read data, attributes, look up, read directory, read link, status, etc... and updating requests including write data, set attributes, rename, remove directory, remove file, link, etc...used for performing essentially concurrently in response to any client workstation that issues NFS requests with respect to the mirrored filesystems [col.5, lines 51 through col. 6, lines 3].
- a partial resynchronization approach used for recovery of data file modification including file creation and deletion made to the mirror filesystem along with accumulated incremental changes to the data files via remote procedure calls [col. 5, lines 51-col. 6, lines 3 and col. 16, lines 60-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to realize that by applying the a partial resynchronization approach used for recovery of data file modification including

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file creation and deletion made to the mirror filesystem along with accumulated incremental changes (i.e., in part the change information... as claimed by Applicant) to the data files via remote procedure calls capability as taught by Kandasamy in conjunction with the Funk's method and apparatus for delivering and modifying information electronically, the data can be thoroughly protected via data file/information updating and exchanging between communication nodes (i.e., sources/destinations) or end user terminal in real-time process. In addition, by performing this data changes or data configuration, the data/information can easily be transmitted and updated in real-time including file modification, verification, confirmation (i.e., substantially concurrently changes of data files) within the data security or protection environment, such as stock and bank data/information updating and exchanging security environment.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the computer data file/information transmission via a networking environment with a mechanism to enhance the data security, data performance, data availability, and data integrity in ordering to providing an optimal data/information protection and exchanging system. It is further obvious because

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by utilizing this approach, data files within the protected system can be realized in latest data/information transmitted among end user communication, real-time data process, and data security protection and execution.

As per claims 32-34:

Funk further teaches:

- updating, translating, and storing data/information within the computer memory system [fig. 1 and 2, col. 3, lines 59-67].
- generating a file, updating a file, converting a file, transmitting a file via a network [col. 2, lines 20-28];
- intercepting change information representing a change made by a process running on a computer system to a file on the computer system [col. 1, lines 62 through col. 2, line 3, col. 2, lines 52-55, col. 3, lines 59-67, and col. 8, lines 50-53];

Funk does not explicitly teach:

- files to be mirrored.

However, Funk does disclose capability of:



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- generating a file, updating a file, converting a file, transmitting a file via a network [col. 2, lines 20-28];
- information modification and editing [col. 6, line 64 through col. 7, line 20];
- periodically updating the information in the information database and generating a file corresponding to the customer based on information in the customer record and the dynamically updated information [col. 2, lines 36-39].

In addition, Kandasamy explicitly teaches:

- A network computer system having a fault tolerant Network Filesystem (NFS) server and mirroring protocol [abstract, fig. 2 col. 1, lines 8-11]

comprising:

- inquiring requests including read data, attributes, look up, read directory, read link, status, etc... and updating requests including write data, set attributes, rename, remove directory, remove file, link, etc... used for performing essentially concurrently in response to any client workstation that issues NFS requests with respect to the mirrored filesystems (i.e., files to be mirrored ... as claimed by Applicant) [col. 5, lines 51 through col. 6, lines 3].

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to apply the *data mirroring in supporting the computer system failover detection and recovery capability* as taught by Kandasamy in conjunction with the Funk's method and apparatus for delivering and modifying information electronically in supporting data protection system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to enhance the computer data file/information transmission via a networking environment. By performing the mirrored files (i.e., copying or duplicating) within the computer system, the system can function and operate without any interruption due to any system failures. This is because the computer system is fully backed up (i.e., data fully mirrored) and readily to perform with high fidelity data performance, data availability, and data integrity among end user communications including end user remotely.

As per claims 35-36:

Funk further teaches:

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- a change is a file and write operation (*i.e., information modification and editing*) [fig. 5, col. 5, lines 52-66 and col. 6, lines 64 through col. 7, lines 20].

As per claim 37:

Funk further teaches:

- the file is accessed by an application program [col. 3, lines 35-42 and col7, lines 21-26].

As per claims 38-39:

Funk further teaches:

- the change information is transmitted to a second computer and to a remote computer (*i.e., end users terminal data transmitted via a LAN and Internet (WAN) environment as well as information exchanging and dynamically updating between source and destination (i.e., end user terminals) via a network in a real-time* ) [fig. 1, col. 3, lines 59 through col. 4, lines 23].
- user dial-up access for requesting information (i.e., information transmitted to a remote computer) [col. 1, lines 42-53].

In addition, Kandasamy explicitly teaches:

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- A network computer system having a fault tolerant Network Filesystem (NFS) server and mirroring protocol [abstract, fig. 2 col. 1, lines 8-11]

comprising:

- inquiring requests including read data, attributes, look up, read directory, read link, status, etc... and updating requests including write data, set attributes, rename, remove directory, remove file, link, etc...used for performing essentially concurrently in response to any client workstation that issues NFS requests with respect to the mirrored filesystems [col.5, lines 51 through col. 6, lines 3].
- a partial resynchronization approach used for recovery of data file modification including file creation and deletion made to the mirror filesystem along with accumulated incremental changes to the data files via remote procedure calls [col. 5, lines 51-col. 6, lines 3 and col. 16, lines 60-67];

As per claim 40:

Claim 40 similar to claim 31. The only minor different is that claim 40 additionally introduced a processor configured to intercept change information.

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However, Funk does disclose capability of:

- a system for data protection [abstract, col. 5, lines 29-33 and col. 6, lines 1-11]

comprising:

- a database coupled with the **processor in supporting the data configuration**, data exchanging, data updating, etc... [fig. 2, col. 4, lines 25-31].

- a connectivity among memory, processor, end-user terminals (**i.e., remote as well as local**) via LAN and Internet (WAN) environment [fig. 1, col. 3, lines 35 through col. 4, lines 25];

Therefore, this claim is also rejected under the same rationale applied against claim 31. **In addition, all of the limitations have been noted in the rejection as per claim 31.**

As per claims 41-42:

These claims are similar to claims 32-34. In addition, Funk also disclosed a new entries in the log file (i.e., new portfolio values for updating) [col. 6, lines 12-24]. Therefore, these claims are also rejected under the same rationale applied against claim 32-34. In addition, all of the limitations have been noted in the rejection as per claim 32-34.

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Applicant's arguments with respect to claims 31-42 filed on 09/21/2005 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (571) 272-3660. The examiner can normally be reached on Monday - Thursday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)272-3644. The Tech Center 2100 phone number is (571) 272-2100. The Central FAX number is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**DIEU-MINH THAI LE**  
**PRIMARY EXAMINER**  
**ART UNIT 2114**

DML  
11/10/05